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A Programmable Audio Controller

Robert A. Sweigert
Indiana University - Purdue University Fort Wayne

PROGRAMMABLE AUDIO CONTROLLER

SENIOR DESIGN REPORT

for

PHASE II

ELECTRICAL ENGINEERING TECHNOLOGY

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ROBERT A. SWEIGERT

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Project Abstract

Programmable Audio Controller

In the field of sound engineering, one of the main tools of the sound technician is an audio mixing console. This device is used to mix a number of audio sources into a composite signal for recording or a public address system. When doing sound engineering for a musical group, there is an opportunity to automate some of the audio mixing functions. This is because the group will most likely be performing the same musical selections at a number of performances.

The way a programmable audio controller can assist in this task is to `remember' the level of the audio signals that were used to create the original performance. In this way when a musical group performs the same selection at a different location, the audio levels can be controlled based on information from the last performance.

A programmable audio controller (the subject of this report) consists of an IBM PC used as a host system to record and replay data about the musical performance. Connected to the computer is an interface unit that will control audio signals.

The host computer and the interface unit are connected to an existing audio mixing console. This forms an integrated system to provide automated mixing capabilities. This system would then be used by a musical group to reduce or possibly eliminate the need for a sound engineer.